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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Comple if Known</b>	
				Application Number	
				Filing Date	
				First Named Inventor	Herman F. Staats
				Group Art Unit	1647
				Examiner Name	R. Landsman
Sheet 1		of 2	Attorney Docket Number	180/102/2	U.S. PTO 374103

[illegible]

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T6
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
BC	B1	WO	88/06843		Cerreti et al.	09/22/1988		
	B2	WO	91/01143 ✓		Pillai et al.	02/07/1991		
	B3	wo	91/13986		Maliszewsk	09/19/1991		
	B4	wo	92/03574		Andrews et al.	03/05/1992		
	B5	wo	94/00491		Bartfai et al.	01/06/1994		
	B6	NL	93/01929		Billiau	10/17/1994		
	B7	EP	810285		Dorssers et al.	12/03/1997		
	B8	EP	761688		Landon	03/12/1997		
	B9	wo	96/07673		Larsen et al.	03/14/1996		
↓	B10	EP	353516		Velati Bellini et al.	09/14/1994		

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## Application Number

Filing Date

**First Named Inventor**

Group Art Unit

Examiner Name

Attorney Docket Number

Herman F. Staats

1646

R. Landsman

180/102/2

(use as many sheets as necessary)

Sheet

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of

2

1985 U.S. PTO  
09/874103  
06/05/01

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Substitute for form 1449B/PTO

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 1 of 2

## **Complete if Known**

Application Number  
Filing Date  
First Named Inventor Herman F. Staats  
Group Art Unit 1647  
Examiner Name R. Landsman  
Attorney Docket Number 180/102/2

1986 U.S. PTO  
09/874103  
16/05/01

## **OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
BL	C1	SARKAR, "Drug Metabolism in the Nasal Mucosa," Pharm. Res., p. 1-9, (1992).	X
	C2	PONTIROLI ET AL., "Nasal Administration of Glucagon and Human Calcitonin to Healthy Subjects: A Comparison of Powders and Spray Solutions and of Different Enhancing Agents," European Journal of Clinical Pharmacology, p. 427-430, (1989).	X
	C3	ELSON ET AL., "Mucosal Adjuvants," Handbook of Mucosal Immunology, Academic Press, Inc. (San Diego), p. 391-402, (1994).	X
	C4	REISS, T. AND STRAUSS, E., "Vaccines-Patenting Dynamics of a Powerful Healthcare Tool," Exp. Opin. Ther. Patents, Vol. 8 ( No. 8), p. 951-958, (1998).	X
	C5	ELSON, "Cholera Toxin as a Mucosal Adjuvant," Mucosal Vaccines, Academic Press (New York), p. 59-72, (1996).	X
	C6	JENKINS, "Mucosal Vaccine Delivery," Exp. Opin. Ther. Patents, p. 255-262, (1999).	X
	C7	LILLARD ET AL., "Lymphotactin Acts as an Innate Mucosal Adjuvant," J. Immuno., Vol. 162 ( No. 4), p. 1959-1965, (1999).	X
	C8	MRSNY, "Adjuvants and Delivery Issues Related to Immunization: A Survey of the Recent Patent Literature," J. of Drug Targeting, Vol. 6 ( No. 4), p. 243-249, (1998).	X
	C9	GIANNARINI ET AL., "Decrease of Allergen-specific T-cell Response Induced by Local Nasal Immunotherapy", Vol. 28, Clinical and Experimental Allergy, pp. 404-412 (1998).	
	C10	POCKLEY ET AL., "In Vivo Adjuvant Effect of Interleukins 5 and 6 on Rat Tear IgA Antibody Responses", Vol. 73, Immunology, pp. 19-23 (1991).	
	C11	O'HAGAN, "Recent Advances in Vaccine Adjuvants for Systemic and Mucosal Administration", Vol. 49, J. Pharm Pharmacol, pp. 1-10 (1997).	

Examiner Signature

*[Signature]*

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		Examiner Name	R. Landsman
Attorney Docket Number	180/102/2		
Sheet	2	of	2

09/874103  
U.S. PTO  
06/05/01

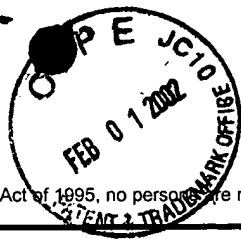
OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
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BL	C12	KRAMER ET AL., "Cytokine Mediated Effects in Mucosal Immunity", Vol. 73, Immunology and Cell Biology, pp. 389-396 (1995).	
	C13	NASH ET AL., "Recombinant Cytokines as Immunological Adjuvants", Vol. 71, Immunology and Cell Biology, pp. 367-379 (1993).	
	C14	LIN ET AL., "Present Status of the Use of Cytokines as Adjuvants with Vaccines to Protect Against Infectious Diseases", Vol. 21, Clinical Infectious Diseases, pp. 1439-49 (1995).	
	C15	LI ET AL., "Nasal Tolerance to Experimental Autoimmune Myasthenia Gravis: Tolerance Reversal by Nasal Administration of Minute Amounts of Interferon-", Vol. 87 Clinical Immunology and Immunopathology, pp. 15-22 (1998).	
	C16	MARINARO ET AL., "Oral but Not Parenteral Interleukin (IL)-12 Redirects T Helper 2 (Th2)-type Responses to an Oral Vaccine Without Altering Mucosal IgA Responses", Vol. 185, No. 3, J Exp. Med., pp. 415-427 (February 3, 1997).	
	C17	XIAO ET AL., "Suppression of Acute and Protracted-relapsing Experimental Allergic Encephalomyelitis by Nasal Administration of Low-dose IL-10 in Rats", Vol. 84, Journal of Neuroimmunology, pp. 230-237 (April 15, 1998) (Abstract).	
	C18	FUJIMARA ET AL., "Effect of Thromboxane A2 Antagonists on Bronchial Hyperresponsiveness Induced Immediately after Interleukin-8 Inhalation in Guinea-pigs", Vol. 122, British Journal of Pharmacology, pp. 1015-1020 (1997).	
	C19	CALLARD ET AL., "The Cytokine Facts Book", Academic Press, Harcourt and Co., Publishers, pp. 241 (1994).	
	C20	ABRAHAM ET AL., "Intranasal Immunization with Liposomes Containing IL-2 Enhances Bacterial Polysaccharide Antigen-Specific Pulmonary Secretory Antibody Response", Journal of Immunology, Vol. 149, No. 11, pp. 3719-3726 (1992).	
	C21	GAO ET AL., "BHV-1 Glycoprotein 1 and Recombinant Interleukin 1B Efficiently Elicit Mucosal IgA Response", Vaccine, Vol. 13, No. 9, pp. 871-877 (1995).	

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			Filing Date	06/05/2001	
			First Named Inventor	Herman F. Staats	
			Art Unit	1647	
			Examiner Name		
Sheet	1	of	1	Attorney Docket Number	180/102/2

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		Number - Kind Code <sup>2</sup> (if known)			
AL	A1	US- 6.153.182	11/28/2000	Lillard, Jr.	
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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.  
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